~~California Department of Water Resources~~
~~Oroville Facilities~~
~~Preliminary Study Plan~~

SP-T9 Recreation and Wildlife

~~Introduction~~

~~December 11, 2001~~February 27, 2002

1.0 Introduction/Background

The project area is one of the major recreation areas in Northern California with an estimated one-half million-visitor days use per year. Recreational use in many forms occurs throughout the year with peak use occurring between May and September. These recreational uses include camping, boating, fishing, hunting, bird watching/nature study, horseback riding, hiking, biking, swimming, sailing, and picnicking. Recreational developments impact wildlife and plant communities through direct loss due to habitat conversion (roads, boat ramps, campgrounds, trails, swimming beaches, parking lots, utilities, sewage systems, hatcheries, buildings, storage areas, fuel breaks, marinas, and other developments). Recreation use can indirectly impact wildlife density and distribution through disturbance/displacement of resident and migratory wildlife. Other potential direct and indirect impacts to wildlife and plant communities are associated with recreation related maintenance activities, soil erosion, chemical contamination, gravel removal, fencing, herbicide and pesticide use.

2.0 Study Objectives

1. Identify ~~current~~ on-going and future recreation-related direct and indirect impacts to wildlife and plant communities.
2. Identify opportunities to reduce or eliminate recreation-related impacts to wildlife and plant communities.

3.0 Relationship to Relicensing /Need for the Study

Both direct and indirect impacts to wildlife and the plant communities that support them may occur as a result of the high level of recreational use in the project area. Levels of recreational development and use are likely to increase in the future, resulting in localized and area-wide impacts to wildlife and their habitats. However, opportunities exist to reduce both ~~current~~ on-going and future recreational impacts through project siting, project design, area closures, seasonal closures, habitat improvements, modification of maintenance practices, restrictions on certain types of recreational use, public education, and other practices. The results of this study are required for both CEQA and NEPA compliance. Further identification of potential recreational impacts to

State and federal special status species is required for compliance with the Endangered Species Acts. Results of this study may lead to protection, mitigation, and enhancement measures incorporated into the license.

4.0 Study Area

Within the FERC project boundary and other areas potentially affected by Project recreation facilities and use. Data collection on wildlife and habitat use may take place outside the FERC boundary when evidence indicates that recreational disturbances extend beyond the FERC boundary. These disturbances can be due to noise, intrusion, dust or erosion. When surveys extend beyond the FERC boundary, the rationale and justification for additional data collection will be provided within the survey report. Study plans approved by the Environmental Work Group define the limits of the study area. If initial study results indicate that the study area should be expanded or contracted, the Environmental Work Group will discuss the basis for change and revise the study area as appropriate.

The survey report will also include the nature of impact, including a qualitative description of the effect as well as the specific affected.~~**Methods and Analysis**~~

5.0 General Approach

If initial study results indicate that the methods and tasks should be modified, the Environmental Work Group will discuss the basis for change and revise the study plans as appropriate.

Task ~~1). Obtain~~1—Obtain wildlife habitat/plant community map in GIS format (produced under ~~SP-T4).~~ SP-T4)

Wildlife habitat designation will follow CWHR ~~methodology~~ methodology.

Task 2—

~~Task 2).~~ Add location information derived from ~~ESA~~ special status species surveys (produced under SP-T2) to wildlife habitat/plant community map.

Task ~~3).~~ 3—

Identify current and potential future recreational developments and associated maintenance practices~~.~~ (provided by Rec SP-R10).

Task 4—

~~Task 4).~~ Using GIS, map existing recreation developments and associated maintenance practices identified in Task 3 (available in Autocad format). ~~Mapping~~ Maps of the areas where maintenance practices occur will be developed from the O&M maintenance plan which identifies the frequency, timing, and location of maintenance activities (provided in SP-R5).

Task ~~5).~~ ~~5~~

Collect and evaluate recreation use levels by season, location, and use type (provided by Rec SP-R7 and SP-R13.

Task 6~~—~~

~~Task 6).~~ Conduct seasonal field evaluations to identify areas of potential wildlife recreational conflicts. Direct habitat loss/conversion will be estimated for each facility including roads, parking lots, and boat ramps. Indirect habitat loss/displacement will be evaluated at each location using a number of criteria including species-specific sensitivity to human intrusion, noise, cover requirements, reproductive, forage and water needs. Identification and evaluation of recreational impacts to special status species will be conducted under SP-T2.

Task ~~7).~~ ~~7~~

Identify site-specific alternative actions to reduce or eliminate current and future wildlife/recreation use conflicts (provided in SP-R12, SP-R15, and SP-R16).

Task ~~8).~~ ~~8~~

Provide preliminary study results

Task 9 -

Provide study results in written report.

6.0 Results ~~and Products/Deliverables~~

~~Results~~

Study product consists of a report that identifies recreation/wildlife conflicts and alternative area-wide and site-specific avoidance or remediation actions. The information provided in the report will be the basis for development of protection, mitigation, and enhancement measures and may lead to settlement agreements. This report will include a set of tables that identify the potential recreation wildlife conflicts, and estimate both direct and indirect habitat losses at each location.

~~Products/Deliverables~~

~~This section to be developed.~~

Products/Deliverables

Preliminary information (Task 8) by August 2003. Final report by January 2004.

7.0 Coordination and Implementation Strategy

Coordination with Other Resource Areas/Studies

Study requires products from studies related to SP-T2, SP-T4, planned recreation use surveys, operations and maintenance practices, and identification of any future recreational developments for successful implementation.

~~Study Schedule~~

~~Task 1 completed by April 2002. Task 2 completed by June 2004. Task 3 current developments completed by April 2002, future developments as identified. Task 4 current developments completed by April 2002, future developments as identified. Task 5 (unknown completion date). Task 6 current developments completed by August 2003, future developments completed as identified. Task 7 and 8 completed by June 2004. Preliminary report will be available June 2003.~~

~~Issues Addressed~~

Issues, Concerns, Comments Tracking, and/or Regulatory Compliance Requirements

This study would address the effects of project-related recreation facilities, activities (including authorized and unauthorized access and use) and management on nesting and wintering Pacific Flyway waterfowl, other wildlife and plant communities. The following i~~I~~ssues will be addressed:

Direct

- 60—evaluate effects of proposed increases in recreational activity in Thermalito Afterbay on waterfowl and other wildlife

Indirect

- 63—protection and sustained conservation of terrestrial wildlife and flora in the project-affected area; comprehensive and well-crafted planning

~~The following Issues will be addressed:~~

~~Issue Statement Effects of project related recreation facilities, activities (including authorized and unauthorized access and use) and management on nesting and wintering Pacific Flyway waterfowl, other wildlife and plant communities.~~

~~60Evaluate~~60 ~~evaluate~~ ~~effects of proposed increases in recreational activity in Thermalito Afterbay on waterfowl and other wildlife~~

~~63 Protection~~63 ~~protection~~ ~~and sustained conservation of terrestrial wildlife and flora in the project-affected area; comprehensive and well-crafted planning~~

8.0 Study Schedule

Task 1 completed by ~~April~~June 2002. Task 2 completed by ~~June~~ December~~2004~~2003. Task 3 current developments completed by ~~April~~June 2002, future developments as identified. Task 4 current developments completed by ~~April~~June 2002, future developments as identified. Task 5 completed by ~~(unknown completion date~~August 2003~~)~~. Task 6 current developments completed by August 2003, future developments completed as identified. Task 7 and ~~8~~9 completed by ~~June~~January 2004. Task 8 ~~Preliminary report~~ will be completed~~available~~ ~~June~~August 2003.